

Utility Patent Application

CONFIDENTIAL INFORMATION

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FAUCET HOSE ANTI-TANGLING GUARD FOR A SHUT-OFF VALVE

RELATED APPLICATIONS

15 The present invention was first described in Disclosure Document
Registration 529,687 filed on April 10, 2003 under 35 U.S.C. §122, 37 C.F.R.
§1.14 and MPEP § 1706. There are no previously filed, nor currently any co-
pending applications, anywhere in the world.

BACKGROUND OF THE INVENTION

1. Field of the Invention

20 The present invention relates generally to faucet hose anti-tangling devices,
and more particularly, to a guard attached to a water line at the shut-off valve, the
25 guard preventing entanglement of a faucet hose with the shut-off valve.

2. Description of the Related Art

A kitchen faucet sprayer is a handy, convenient, time-saving device. The sprayer provides water at a point where needed in a gentle stream, making it ideal for quickly and easily washing dishes and/or preparing them for the dishwasher. It is also great for filling large containers that will not fit under the faucet, and is ideal for watering nearby houseplants. It helps conserve water as well by performing its task quickly, thus eliminating excessive water usage. However, one problem that is common to the faucet sprayer is the tendency for the hose to get caught on shut-off valves that are located under the sink as it is being drawn from its housing. This forces the user to stop and go under the sink to remedy the situation, which is aggravating at best.

In light of this problem, there is a need for a way to prevent the spray hose from becoming wrapped around the shut-off valve as it is being drawn from its housing. A faucet hose anti-tangling guard for a shut-off valve does this effectively and simply by encasing the valve so the hose cannot become caught on it. It deflects the hose, allowing for its easy withdrawal from its housing. The homemaker can then quickly, conveniently, and easily wash dishes or prepare them for the dishwasher or use the sprayer for other chores.

A search of the prior art did not disclose any patents that read directly on the claims of the instant invention; however, the following references were considered related:

U.S. Patent No. **4,761,839**, issued in the name of *Ganaway*, discloses a sink
5 spray and auxiliary attachment device having an upstream and downstream stem integrally joined to a valve housing;

U.S. Patent No. **5,675,847**, issued in the name of *Pierre*, discloses an under-sink hose retainer comprising a hollow storage container for the hose;

U.S. Patent No. **5,771,934**, issued in the name of *Warshawsky*, discloses a
10 zinc-based spray faucet hose collar weight for preventing tangling of the faucet hose;

U.S. Patent No. **5,934,325**, issued in the name of *Brattoli et al.*, discloses a pullout faucet wand joint comprising a receptor formed and adapted for mounting on a sink deck, the receptor having an opening for receiving a faucet wand;

U.S. Patent No. **5,960,832**, issued in the name of *Warshawsky*, discloses a
15 zinc-based spray faucet hose collar weight for preventing tangling of the faucet hose;

U.S. Patent No. **6,220,297**, issued in the name of *Marty et al.*, discloses a pullout spray head comprising an annular elastomeric bushing to reduce play and wobbling of the spray head;

U.S. Patent No. **6,250,338**, issued in the name of *Dempsey*, discloses a composite faucet hose weight comprising interchangeable interlocking bodies conjoined about a hose to form a single hose weight;

U.S. Patent No. **6,381,774**, issued in the name of *Wales*, discloses a retractable hose for a faucet; and

U.S. Patent No. **6,460,570**, issued in the name of *Jones et al.*, discloses a spray faucet hose weight for nesting the spray nozzle.

Consequently, there exists a continuous need for new ideas and enhancements for existing products in the hose anti-tangling industry.

SUMMARY OF THE INVENTION

It is therefore an object of the present invention to provide an improved faucet or spray hose anti-tangling guard for a shut-off valve and lever.

It is a feature of the present invention to provide a guard comprising a front portion and a rear portion easily coupled or conjoined about a water supply line at the valve lever, the front and rear portions comprising a prolate or spherical shape to prevent entanglement of a hose.

It is another feature of the present invention to provide a guard, wherein the front portion and rear portion each comprise a semi-spherical space or indentation to accommodate receipt and housing of a water supply line therein.

It is yet another feature of the present invention to provide a guard, wherein the front portion comprises a recessed aperture through which the valve lever projects through and partially egresses from, the aperture allowing for easy access and manipulation of the valve lever as required.

5 Briefly described according to one embodiment of the present invention, a faucet hose anti-tangling guard for a shut-off valve is a molded plastic shield that has a prolate shape, divided across a short axis into two portions. The rear portion attaches over a water shut-off valve assembly using two plastic brackets assembled with screws. The front portion is positioned over the valve handle. A recessed
10 aperture in the front portion provides access to the valve handle without removing the invention. A foam gasket prevents the shield from slipping. With the guard in proper position, the faucet hose cannot wrap around the water shut-off valve while the hose is being drawn from its housing for use. The guard also eliminates the possibility of the hose turning the shut-off valve.

BRIEF DESCRIPTION OF THE DRAWINGS

The advantages and features of the present invention will become better understood with reference to the following more detailed description and claims taken in conjunction with the accompanying drawings, in which like elements are
20 identified with like symbols, and in which:

FIG. 1 is an exploded perspective view of a front portion and rear portion that forms a faucet or spray hose anti-tangling guard for a shut-off valve and lever;

FIG. 2 is a side view of the guard illustrating impingement arms and cavities for attachment means and the partial egress of the valve lever from the aperture of front portion;

FIG. 3 is a side view of the guard illustrating threaded screws and corresponding threaded cavities for attachment means; and

FIG. 4 is a front view of the guard, wherein the valve lever is easily accessible through the front portion via a recessed aperture therein.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The best mode for carrying out the invention is presented in terms of its preferred embodiment, herein depicted within Figures 1 through 4.

1. Detailed Description of the Figures

Referring now to **FIG. 1** through **FIG. 4**, a faucet or spray hose anti-tangling guard for a shut-off valve (hereinafter "guard"), generally denoted by reference numeral **10**, is shown in accordance with a preferred embodiment of the present invention. The guard **10** comprises a front portion **12** and a rear portion **14**, the portions **12** and **14** conjoined or coupled to form a unitary body for placement on the water supply line **50** and about a shut-off valve lever **60** of the line **50**. The front

portion **14** includes a recessed aperture **16** for exposing the valve lever **60** so that a user may easily access the valve lever **60** without having to remove or displace the guard **10** from the line **50** and valve lever **60**.

The portions **12** and **14** may have a variety of exterior forms, such as a
5 curvilinear exterior, including the prolate (pill or football) shape depicted in the figures, or a spherical shape, so long as the shape does not provide severe edges upon which a faucet or spray hose may be entangled about. The prolate or spherical shape of the conjoined portions **12** and **14** to form guard **10** prevent a hose from entangling thereabout, since there are no edges to catch. The portions
10 **12** and **14** are each envisioned as having a hemispherical or semi-spherical indentation **20** for accommodating approximately one-half of the line **50** to which the portions **12** and **14** are affixed. The indentation **20** traverses the longitudinal axis (long axis) of each of the portions **12** and **14**. The portions **12** and **14** are envisioned as affixed or conjoined via a plurality of attachment means **18**, including
15 integral or insertable threaded screws **18a** and/or corresponding nuts or threaded cavities **18b** (see **FIG. 3**), impingement arms **18c** and corresponding cavities **18d** (see **FIG. 2**), snap fasteners, or other similarly functioning means. When affixed about the line **50**, the portions **12** and **14** substantially circumscribe the external circumference of line **50**.

The front portion **12** further comprises a recessed aperture **16** for permitting projection of the valve lever **60** therefrom. The aperture **16** provides sufficient space about the valve lever **60** so that a user may easily access the valve lever **60** to open or close the line **50** as required. It is envisioned that the aperture **16** and the front portion **12** are dimensioned to permit egress of valve lever **60** to facilitate access to the valve lever **60**. However, the egress of valve lever **60** from aperture **16** is envisioned as only partial egress so that a hose does not tangle about the valve **60**. The partial egress envisioned is best illustrated in **FIG. 2** and **FIG. 3**, wherein a substantial thickness of the valve lever **60** is exposed external to the aperture **16**, but does not completely project out from the aperture **16** (for the reasons cited).

The portions **12** and **14** may include a foam or rubber gasket(s) **22** about the upper internal circumference and lower internal circumference of the portions **12** and **14**, respectively, at the junction where the portions couple or join and along the openings in the top and bottom. The gasket(s) **22** is/are provided to prevent slippage of guard **10** during operation.

Preferably, the guard **10** is fabricated from a durable material, such as metal, plastic or other suitable material. If metal is preferred, treatment with an anti-corrosive agent may be desirable to prevent corrosion of the metal from damp or

wet conditions. The guard **10** may be provided in a variety of colors and shapes, particularly coordinated to suit the tastes of the user, including colors and shapes that fit the home decor motifs of the user.

The guard **10** may be fabricated from plastic in an injection mold or other molding techniques using unique mold designs. The use of relatively inexpensive and easily obtainable components is intended to reduce the effective cost of production and the resulting price to consumers.

2. Operation of the Preferred Embodiment

To use the present invention, the user will place the rear portion **14** onto a water supply line **50**, aligning the line **50** within a space or indentation **20** that accommodates the shape of the line **50**. The front portion **12** is then coupled with the rear portion **14** about the line **50**, ensuring that the valve lever **60** inserts into and partially egresses from the aperture **16**. The front and rear portions **12** and **14** are conjoined by attachment means **18**. The faucet or spray hose is used without worry or hassle that the hose will become entangled by the valve lever **60**, thereby restricting water flow through the hose, or in accidentally rotating the lever **60** so that water flow is reduced or restricted.

The foregoing descriptions of specific embodiments of the present invention have been presented for purposes of illustration and description, and are not

intended to be exhaustive or to limit the invention to the precise forms disclosed.

Obviously many modifications and variations are possible in light of the above

teaching. The embodiments were chosen and described to best explain the

principles of the invention and its practical application, thus enabling others skilled

5 in the art to best utilize the invention with various modifications as are suited to the

particular use contemplated. It is intended that the scope of the invention be

defined by the Claims appended hereto and their equivalents. Therefore, the scope

of the invention is to be limited only by the following claims.

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